

AC 1650

Engine : Cummins
 Alternator : Mecc Alte
 Control System : P 732 control system

Standby 1650 kVA
 Diesel Generating Sets

**ISO8528**

This generator set has been designed to meet ISO 8528 regulation.

SZUTEST

This generator set is manufactured in facilities certified to ISO 9001.

CE

This generator set is available with CE certification.

2000/14/EC

Enclosed product is tested according to EU noise legislation 2000/14/EC

3 Phase Ratings, 50 Hz, PF 0,8

Voltage	Standby Rating (ESP)		Prime Rating (PRP)		
	kVA	kW	kVA	kW	Amp
400/230	1650,00	1429,00	1400,00	1200,00	2020,00

Standby Rating (ESP): Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528. Overload is not allowed.

Prime Rating (PRP): Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528. 10 % overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046.

STANDARD SPECIFICATIONS

- Heavy duty, water cooled diesel engine
- Radiator with mechanical fan
- Protective grille for rotating and hot parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine coolant heater
- Steel base frame and anti-vibration isolators
- Spare external fuel tank (open set)
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately
- Static battery charger
- Manual for application and installation

OPTIONAL EQUIPMENTS**ENGINE**

- Remote Radiator Cooling
- Fuel-Water Separator Filter
- Oil heater

ALTERNATOR

- Anti-Condensation Heater
- Over sized alternator
- Main line circuit breaker

CONTROL SYSTEM

- Automatic synchronising and power control system (multi gen-set Parallel)
- Parallel system with mains.
- Transition synchronization with mains
- Remote annunciator panel
- Remote relay output
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charge Ammeter

OTHER ACCESSORIES

- Automatic or manual fuel filling system
- Electrical oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weather protective or sound attenuated
- Duct adapter (on radiator)
- Inlet and outlet motorised louvers
- Inlet and outlet acoustic baffles
- Tool kit for maintenance
- 1500/3000 hours maintenance kit
- Double wall chassis
- Supplied with oil and coolant - 30 °C
- Main Fuel Tank
- Automatic transfer switch

TRANSFER SWITCH

- Three or four pole contactor
- Three or four pole motor operated circuit breaker

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● DIESEL ENGINE SPECIFICATIONS

Manufacturer		Cummins	
Model		KTA 50 G8	
No. of Cylinders and Build		16-cylinder, V - Type	
Aspiration and Cooling		Turbo Charged and Two Pump Two Loop	
Maximum Standby Power		1500 rpm	
		1429,00 kW [1915,00HP]	
Total Displacement	L	50,300	
Bore and Stroke	mm	159 x 159	
Compression Ratio		14,9:1	
Rated Speed (rpm)	rpm	1500	
Governor		Electronic	
Oil Capacity	L	204,00	
Coolant Capacity	L	420,00	
Intake Air Flow	m³ /min.	99,30	
Radiator Cooling Air	m³ /min.	2631,00	
Exhaust Gas Flow	m³ /min.	261,00	
Exhaust Gas Temperature	° C	510,00	
Start System		24 V d.c.	
Fuel Consumption	Load	%100	%75
	L/h	289,00	222,00
			%50
		155,00	

● ALTERNATOR SPECIFICATIONS

Make		Mecc Alte	
Model		ECO46 1S/4	
Frequency	Hz	50	
Power	kW	1500,00	
Design		Brushless, 4 poles	
Cos Phi		0,80	
Phase		3	
Voltage	V	400/230	
Current	A	2165,00	
Insulation Class		H	
Temperature		H	
Stator		2 / 3 steps	
Rotor		Single Bearing System, Flexible Disc	
Excitation System		Electronic (AVR)	

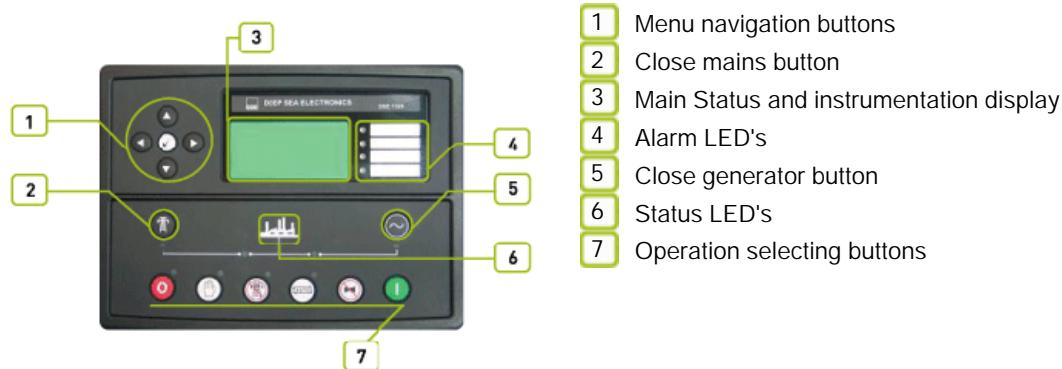
● DIEMENSIONS AND WEIGHT

Open Type	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
AC 1650	10100,00	5449,00	1950,00	2450,00	2000,00
Canopy	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
AK 98	15100,00	9000	2270	2550/3210	1900

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④ P 732 control system - Control System



⑤ Devices

DSE, model 7320 Auto Mains Failure control module
 Static battery charger
 Emergency stop push button and fuses for control circuits

⑥ Construction and Finish

Components installed in sheet steel enclosure. Phosphate chemical, pre-coating of steel provides corrosion resistant surface
 Polyester composite powder topcoat forms high gloss and extremely durable finish
 Lockable hinged panel door provides for easy component access

⑦ Installation

Control panel is mounted generating set baseframe on robust steel stand or power module.
 Located at side of generating set with proper panel visibility.

⑧ Generating Set Control Unit

The DSE 7320 control module is a standard addition to our generator sets from 220 kVA upwards and it has been designed to start and stop diesel and gas generating sets that include electronic and non electronic engines. The DSE 7320 includes the additional capability of being able to monitor a mains (utility) supply and is therefore suitable for controlling a standby generating set in conjunction with an automatic transfer switch. The DSE 7320 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LCD display on the front panel.

Standard Specifications

- Microprocessor controlled
- 132 x 64 pixel LCD display makes information easy to read
- Front panel programming and also via PC software
- Soft touch membrane keypad and five key menu navigation
- Remote communications via RS232, RS485 and ethernet and SMS messaging
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler
- Engine block heater control.
- Controls: stop, manual, auto, test, start, mute, lamp test/transfer to generator, transfer to mains, menu navigation.

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● Instruments

ENGINE
 Engine speed
 Oil pressure
 Coolant temperature
 Run time
 Battery volts
 Engine maintenance due
GENERATOR
 Voltage (L-L, L-N)
 Current (L1-L2-L3)
 Frequency
 Earth current
 kW
 Pf
 kVAr
 kWh, kVAh, kVArh
 Phase sequence
MAINS
 Voltage (L-L, L-N)
 Frequency

● Protection Circuits

WARNING
 Charge failure
 Battery under voltage
 Fail to stop
 Low fuel level (opt.)
 kW over load
 Negative phase sequence
 Loss of speed signal
PRE-ALARMS
 Low oil pressure
 High engine temperature
 Low engine temperature
 Over /Under speed
 Under/over generator frequency
 Under/over generator voltage
 ECU warning
SHUT DOWNS
 Fail to start
 Emergency stop
 Low oil pressure
 High engine temperature
 Low coolant level
 Over /Under speed
 Under/over generator frequency
 Under/over generator voltage
 Oil pressure sensor open
 Phase rotation
ELECTRICAL TRIP
 Earth fault
 kW over load
 Generator over current
 Negative phase sequence

● Options

High oil temperature shut down
 Low fuel level shut down
 Low fuel level alarm
 High fuel level alarm
EXPANSION MODULES
 Editorial LED module (2548)
 Expansion relay module (2157)
 Expansion input module (2130)

● Standards

Electrical Safety / EMC compatibility
 BS EN 60950 Electrical business equipment
 BS EN 61000-6-2 EMC immunity standard
 BS EN 61000-6-4 EMC emission standard

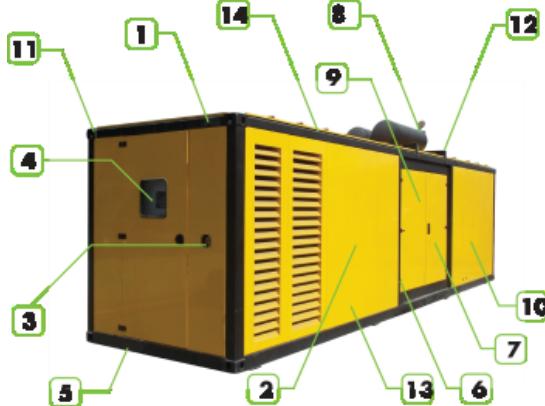
● Static Battery Charger

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AK 98 - Canopy



- 1 Steel structure made from steel sheet and steel profiles.
- 2 canopy and panels made from powder coated sheet steel.
- 3 Emergency stop push button.
- 4 Control panel is mounted on the baseframe . Located at the back of the generator set.
- 5 Cables locations are under of the canopy.
- 6 Corrosion-resistant locks and hinges.
- 7 oil could be drained via valve and a hose
- 8 Exhaust system on the canopy.
- 9 special large access doors (marine type) for easy maintenance
- 10 Fuel tank is at front of the canopy ,easy access to the fuel tank via lockable door.
- 11 Lifting points similar to ISO container , located on each top corner of the canopy.
- 12 The cap of the canopy provides easy access to radiator cap.
- 13 sound proofing materials
- 14 Integrated ladder built in to side of the canopy allows access to the top of the canopy.

Introduction

Sound-attenuated and weather protective enclosures for generating sets from Aksa, meet even the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our modular designed sound insulated canopies provide ease of access for servicing and general maintenance and interchangeable components permitting on-site repair. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

Standard Specifications

Compact footprint, low profile design.

Enclosure, generator set, exhaust system and fuel tank are pre-assembled, pre-integrated and shipped as one package

Body made from steel components treated with polyester powder coating

Fire retardant foam insulation

Easy access to all service points

Exhaust system inside canopy

Large doors on each side

Control panel viewing window in a lockable access door

Emergency stop push button mounted on enclosure exterior

Cooling fan and battery charging alternator fully guarded

Fuel fill and battery can only be reached via lockable access doors.

Lifting points on the top of canopy and base frame

Customer options available to meet your applications needs.

Aksa makes its generating sets' noise level tests in accordance with directive 2000/14/EC validation of the noise level test has been approved by the notified body Szutest

Width	mm.	2270
Lenght	mm.	9000
Height	mm.	2550/3210
Fuel Tank Capacity	L	1900